What is Claimed:

1. An apparatus for dispensing, applying, and sealing individual sections of thermoplastic tape across a portion of a web of thermoplastic material, said apparatus comprising: means for dispensing said tape; a tape applicator apparatus; means for delivering tensioned tape from said tape dispensing means to said tape applicator apparatus comprising a tape registration assembly for adjusting the position of said tape and a tape drive assembly for advancing said tape; a tape cutter assembly for cutting said tape into individual sections of a preselected length; vacuum belt means for advancing said section of tape into a desired position across said web of thermoplastic material; a tape sealing mechanism for applying pressure and heat to said tape section on said web for a specified dwell time; and means for sequentially advancing said web.

2. The apparatus of Claim 1 wherein said means for dispensing said tape comprises: a roll of said tape pivotally mounted on a powered unwind seal; a tension arm having said tape round thereon, said tension arm being slidable mounted so as to rise or discard in response to tension on said tape; and means for controlling rotation speed and tension of said unwind reel in response to said rising or descent of said tension arm.

3. The apparatus of said Claim 1 wherein said means for delivering tensional tape comprises: a plurality of dancer rollers thereon, the position of said tensioned dancer rollers indicating tension on said tape; film synchronizes means for synchronizing said tape with said tape application, said film synchronizer means having one or more vertically adjustable rollers therein, said rollers being vertically adjustable in response to tension on said tape disposed through said

rollers; and a tape registration assembly for adjusting the registration of said tape, and a nip drive assembly for feeding said tape in response to the position of said rollers in said film synchronizer means and the position of said dancer rollers.

4. An apparatus for dispensing, applying and sealing individual sections of thermoplastic tape across a portion of a web of thermoplastic material, said apparatus comprising: means for advancing said web of thermoplastic material, said means including a motorized drive roll for dispensing said web; one or more dancer rollers having said web threaded therethrough, a dancer arm supporting at least one of said dancer rollers; a pair of motorized nip rollers for advancing said web through said apparatus; means for detecting the position of said dancer arm and actuating said motorized drive roll and said motorized nip rolls at the speed required to maintain a selected tension on said web; means for detecting the position of said tape and for signaling said web drive roll and said nip rollers to speed up or slow down in response thereto; and control means for coordinating the signals from said means for detecting the position of said tension arm and said means for detecting the position of said tape and for controlling the speed of said web and said tape.

5. The apparatus of Claim 4 and further comprising: a form fill seal machine having a set of dancer rollers on the front portion thereof for carrying said web having said sections of tape thereon; a sensor for determining the position of at least one of said dancer rollers so as to determine the tension on said web; and means for signaling said control means for controlling the speed of said web and said tape.

6. The apparatus of Claim 4 wherein said control means comprises: a

computer electronically connected to said tension arm, said motorized drive roll, said means for detecting the position of said dancer arm, said motorized nip rollers, said means for detecting the position of said tape, said tape drive roll, and said tape nip rollers.

47. The apparatus of Claim 1 wherein said control means comprises fluid logic controls to said tension arm, said motorized drive roll, said means for detecting the position of said dancer arm, said motorized nip rolls , said means for detecting the position of said tape, said tape drive roll and said tape nip rollers.

8. The apparatus of Claim 1 and further comprising: means for ultrasonic sealing the ends of said sections of said tape prior to cutting of said tape, positioned between said means for dispensing said tape and said tape applicator.

9. The apparatus of Claim 1 wherein said vacuum belt means, said tape registration assembly and said tape cutter assembly are interconnected by a belt drive constructed and arranged for maintaining the relative speed of operation of said vacuum belt means, said tape cutter assembly and said nip rollers, and for retaining the relative position of said tape and said tape segments driving operation of said apparatus.

10. The apparatus of Claim 9 wherein said belt drive is powered by a single motor so as to provide constant speed and tension.

11. The apparatus of Claim 9 wherein said tape drive assembly comprises: a double hub, having a first hub and a second hub, said first hub being connected by a toothed belt to a third hub on said drive motor, said third hub being mounted on a first shaft powered by said drive motor so as to rotate said

third hub thereby causing said double hub to rotate; said double hub being mounted on an end of one of said nip rollers so as to cause rotation of said nip roller when said double hub is rotated; said vacuum belt having a drive shaft extending through one end thereof and a fourth hub extending from said drive shaft, said fourth hub having a toothed drive belt disposed thereon; said toothed drive belt being connected to first said hub so as to cause said fourth hub and said drive shaft to rotate when said first hub rotates, thereby driving said vacuum belt in synchronization with said cutter assembly and said nip rollers.

12. The apparatus of Claim 1, wherein said tape cutter assembly comprises: an air piston mechanism having a shaft extending downwardly therefrom, said air piston being constructed and arranged to selectively raise and lower said shaft; a cutter blade and clamp affixed to the distal end of said shaft for clamping and cutting of said tape; a slidable die plate for selectively being positioned under said tape, said die plate having a slot extending therethrough and a spring loaded stripper block proximate said slot; said clamp being constructed and arranged for pushing down said stripper block when said shaft is extended so as to facilitate cutting of said tape; said stripper block being constructed and arranged to press upwardly when said clamp is pulled upwardly by said shaft, said stripper block being constructed and arranged to push the distal end of said tape towards said vacuum belt.

13. The apparatus of Claim 1 wherein said vacuum belt means comprises: a vacuum belt having a plurality of holes extending therethrough; said vacuum belt being rotatably mounted on a pair of rollers; at least one of said rollers being powered so as to selectively cause rotation of said belt, and

incremental advancement of said belt a desired distance; a ledge extending below said belt constructed of a slick thermoplastic elastomer and sized and positioned so as to serve as a barrier to air from said web moving thereunder, and as an eliminator of plastic electricity.

14. The apparatus of Claim 13 wherein said vacuum belt is approximately one inch wide and said holes are centered 5/8" from the edge of said belt.

15. The apparatus of Claim 1 wherein said tape comprises a folded loop having a pair of interlocked fastener profilers attached thereto on the inside surface thereof, said interlocked fastener profilers being constructed and arranged for selectively opening and resealing, whereby when said tape is positioned and sealed on said web, said web is suitable for conversion into a plurality of resealable bags.

16. A method of sealing individual sections of thermoplastic tape across a portion of a web of thermoplastic material: dispensing said tape a desired distance; cutting said tape to a desired length of the individual sections of said tape; grasping the end of said individual section through the use of a vacuum; sequentially applying vacuum to the length of said individual section of tape and simultaneously advancing said individual section of tape over said web; pressing said individual section of tape to said web; and heat sealing said individual section of tape to said web.

17. The method of Claim 16 and further comprising the step of coordinating the advancement of said web with the advancement of said tape and said section of tape.

18. The method of Claim 17 and further comprising the steps of: running said web from an unwind roll through a series of dancer rollers; reading the portion of said dancer rollers; signaling a drive motor to advance or retard said web based on the position of said dancer rollers; signaling a tape drive the position of said dancer roller; running said tape through a series of tape dancer rollers; signalling said tape drive the position of said tape dancer rollers, thereby causing said tape drive to advance or retard said tape; signalling said drive motor to advance or retard said web.

19. The method of Claim 18 and further comprising: feeding said web with sections of tape sealed thereon into a form fill seal machine and through a set of form fill seal dancer rollers at the back thereof; signalling the position of said form fill seal dancer rollers to said tape drive and said web drive motor so as to control movement of said tape and said web.

20. An apparatus for the coordination of web and tape in a multi dancer roller machine comprising: a sensor for detecting the position of said tape on tape dancer rollers; a sensor for detecting the position of said web on said web dancer rollers; means for coordinating sequential advancement of said tape, said web and the cutting of said tape.

21. The apparatus of Claim 1 and further comprising: computer means for coordinating said means for dispensing said tape, said tape applicator, said tape cutter, said tape drive, said vacuum belt and said means for sequentially advancing said web.

22. The apparatus of Claim 21 and further comprising: keyboard means for adjusting the length of said tape sections, the space between said tape sections

sealed on said web, and the speed of operation of said apparatus for dispensing, applying and sealing said individual sections of tape to said web.

23. A vacuum belt slit for tape having fastener profilers thereon; said vacuum belt comprising: a vacuum belt having a plurality of holes extending therethrough; said vacuum belt being rotatably mounted on a pair of rollers; at least one of said rollers being powered so as to selectively cause rotation of said belt, and incremental advancement of said belt a desired distance; a vacuum source for said vacuum belt; and said vacuum belt being aligned with a flange of said tape so that said fastener profilers run parallel to but not under said vacuum belt whereby said tape segments may be firmly drawn and held to said belt by said vacuum source, and advanced to a desired position over said web.

24. The apparatus of Claim 23 and further comprising: vertically movable sealing bar means for sealing said tape segment to said web, said sealing bar means being positioned so as to seal a portion of said tape running parallel to and extending laterally from under said vacuum belt to said web.

25. A method of manufacturing a reclosable bag having top and bottom ends and opposing front and rear walls comprising the steps of: forming said walls from web material having thereon a flexible interlocking fastener lip permanently connected to a fastener assembly, said fastener assembly comprising an engaging portion releasably connected to a complimentary engaging portion, said complimentary engaging portion sealed to said front wall; and, simultaneously sealing an end of said front wall to said flexible interlocking fastener lip, and sealing said flexible interlocking fastener lip to said back wall, whereby a fail-safe reclosable bag barrier is formed reducing the risk of contamination or release of

contents within or from an interior storage volume of said bag by inadvertent separation of one portion of said front wall from another portion of said wall.

26. The method of Claim 25 further comprising the steps of securing said complimentary engaging portion to a front wall portion of said web material; and, releasably interconnecting said complementary engaging portion to said engaging portion upstream from a forming and filling nozzle cylinder of a form, fill and seal machine.

27. The method of Claim 25 further comprising the step of securing predetermined sections of said fastener assembly having said flexible interlocking fastener lip to a continuous elongate sheet of said web material at bag length intervals along said continuous elongate sheet.

28. The method of Claim 25 in which said step of sealing includes heat sealing.

29. The method of Claim 25 further comprising the step of inserting products into said reclosable bag.

30. A reclosable bag having front and back walls and a first end and a second end comprising : an interlocking fastener lip having an engaging member thereon, said interlocking fastener lip disposed between said walls and sealed to said walls at said first end of said bag; a complimentary engaging member aligned with respect to said engaging member and connected to said front wall, said engaging member being releasably connected to said complimentary engaging member, in which contamination or release of the contents of said reclosable bag is prevented upon inadvertent separation of one portion of said wall having said complimentary engaging member from another portion of said wall.

31. The reclosable bag of Claim 30 further comprising products.

32. The reclosable bag of Claim 30 further comprising a rupture line disposed on said front wall between said first end and said complementary engaging member.

33. The reclosable bag of Claim 32 further comprising promotional material or coupons disposed in a pouched formed from said lip and said front wall, said promotional material or coupons being accessible by rupture of said rupture line.

34. An apparatus for manufacturing reclosable bags having top and bottom ends and opposing front and rear walls comprising, in combination, web material having thereon a flexible interlocking fastener lip permanently connected to a fastener assembly, said fastener assembly comprising an engaging portion releasably connected to a complimentary engaging portion, said complimentary engaging portion connected to said front wall; means for simultaneously sealing an end of said front wall to said flexible interlocking fastener lip, and said flexible interlocking fastener lip to said back wall; and, means for forming and sealing said bags from said web material.

35. The apparatus of Claim 34 further comprising means for filling said recloseable plastic bags with products.

36. A web comprising a multiplicity of flexible interlocking fastener lips free of connection to said web, each said lips permanently connected to a fastener assembly, each said fastener assembly comprising an engaging member interlocked and releasably connected to a complimentary engaging member, said complimentary engaging member connected to a front wall portion of said web.

37. The web of Claim 36 in which said web is provided on a roll.

38. The web of Claim 37 in which several of said rolls are packaged together.

39. A tape for a web, said tape comprising a lip, a fold connected to said lip, an opposite wall connected to said fold, and flange connected to said opposite wall, said lip, fold, opposite wall and flange having an outer surface thereof capable of being sealed to said web, said lip having a recloseable fastener portion connected thereto at an end thereof matable to a mating fastener connected to said opposite wall, said mating fastener having said flange juxtaposed thereto and being substantially parallel to an end of said flange, and said lip, fold, and opposite wall having an inside surface thereof treated so as to be non-sealable.

40. The tape of Claim 39 free of said fold.

41. The tape of Claim 39 in which said lip, fold, opposite wall and flange comprise a continuous piece of plastic material.

42. A bag having a front and back wall, said bag comprising the tape of Claim 39 in which said outer surface of said opposite wall and said flange is sealed to said front wall and said lip is sealed to said back wall, said bag having an upper severable portion and a temporary storage volume accessible by severance of said upper severable portion, in which severance of said upper several portion provides access to said reclosable fastener portion and said mating fastener.

43. The bag of Claim 42 in which said outer surface of said opposite wall and said flange is substantially sealed to said front wall and said lip is substantially sealed to said back wall.

44. The bag of Claim 42 in which said there are two apertures on said

tape and in which multiple fusible seals are disposed at opposite ends of said bag sealing said front wall to said back wall.

45. A simplified method of manufacturing a reclosable bag having top and bottom ends, opposing front and rear walls and a top seal, comprising the steps of: securing a fastener assembly having a fastener element and a mating fastener element to a front wall portion of a web material at said fastener element and releasably interconnecting said fastener element to said fastener mating element upstream from a forming and filling nozzle cylinder of a form, fill and seal machine, said fastener mating element having thereon a flexible interlocking fastener lip permanently connected to said mating fastener element; forming said walls from said web material; sealing an end portion of said front wall to an end portion of said flexible interlocking fastener lip; and, sealing said end portion of said flexible interlocking fastener lip to an end portion of said back wall to form said top seal of said reclosable bag, in which said sealing steps occur simultaneously.

46. The method of Claim 45 in which said sealing step occurs after said forming step.

47. A method of making a reclosable bag having top and bottom seals and opposing front and rear walls, said reclosable bag made from web material having a length and a width, comprising the steps of: connecting a predetermined length of fastener tape or flange substantially perpendicular to said length of said web material and on said front wall at a lip of said fastener tape or flange, said fastener tape or flange having an interlocked fastener connected thereto, forming said opposing front and rear walls, and said top and bottom seals, and, connecting

said fastener tape or flange to said front and rear walls at a location other than said interlocked fastener or said lip.

48. The method of Claim 47 in which said fastener flange is substantially h-shaped, said h-shaped fastener flange having a first and second leg, and further comprising the step of connecting said interlocked fastener to each of said legs.

49. The method of Claim 48 further comprising the step of connecting barrier tape to an inside wall of each of said legs.

50. The method of Claim 48 further comprising the step of coating an inside wall of each of said legs to make each said inside wall non-sealing.

51. The method of Claim 48 further comprising the steps of providing said fastener tape or flange from a roll, cutting said fastener tape or flange to obtain said predetermined length of fastener tape or flange, said predetermined length of fastener tape or flange having two opposing ends, and sealing said opposing ends.

52. A fastener flange, said fastener flange being substantially h-shaped, said substantially h-shaped fastener flange having a first leg and a second leg, said first leg being connected to said second leg by an interlocked fastener, and a mounting lip connected to said second leg.

53. The fastener flange of Claim 52, in which said first leg and said second leg comprise a closed loop.

54. The fastener flange of Claim 52 in which said fastener flange is formed from thermoplastic material in the range of up to 4 mil in thickness.

55. The fastener flange of Claim 52 in which the interlocked fastener

and said fastener flange are non-homogeneous.

56. A method of manufacturing fastener tape, comprising the steps of: connecting a fastener of an interlocked fastener assembly to a base tape material, said interlocked fastener assembly having said fastener and a fastener complementary to said fastener, folding said base tape material over said complementary fastener to form a fold, and, connecting said complementary fastener to said base tape material.

57. The method of Claim 56 further comprising the step of slitting said fold to forma fastener flange.

58. The method of Claim 56 further comprising the step of coating an interior surface of said base tape material to make it non-sealing.

59. The method of Claim 56 further comprising the step applying barrier tape on the inside surface of said fold.

60. The method of Claim 59 further comprising the step of slitting said barrier tape and said fold to form a fastener flange.

61. A method of sealing fastener tape or flange to a web in a form, fill, seal machine, said fastener tape or flange having an interlocked fastener connected thereto, and said web having a length and a width comprising the step of connecting a predetermined length of said fastener tape or flange substantially perpendicular to said length of said web at a location other than at said interlocked fastener.

62. The method of Claim 61 further comprising the step of connecting said predetermined length of said fastener tape or flange to a front wall of a bag formed in said machine, at a substantially flat lip of said fastener tape or flange.

63. The method of Claim 61 further comprising sealing said predetermined length of said fastener tape or flange to said web at least two locations other than at said interlocked fastener.

64. The method of Claim 63 in which said two additional locations comprise a front wall and a back wall of a bag formed in said form, fill, seal machine.

65. The method of Claim 63 further comprising the step of pinning or optionally staking said fastener tape or flange to said web prior to said connecting step.

66. The method of Claim 63 further comprising the steps of pinning or optionally staking one end of said fastener tape or flange prior to cutting a second end of said fastener tape or flange.

67. The method of Claim 66 further comprising the step of simultaneously pinning a second end of said fastener tape or flange during said cutting step.

68. The method of Claim 62 in which said connecting step further comprises the step of sealing said lip to said web to form a seal while said fastener tape or flange is pinned to said web.

69. The method of Claim 68 in which said seal is substantially parallel to said interlocked fastener.

70. The method of Claim 68 in which a seal bar performs said step of sealing, and further comprising the steps of pinning said fastener tape or flange to said web while said seal bar moves away from a sealing position.

71. The method of Claim 61 further comprising the step of connecting

ends of said predetermined length of said fastener tape or flange to keep said interlocked profile in alignment.

72. A reclosable tape comprising, a reclosable interlocked fastener connected to a tape, said tape having a loop having a fold, said recloseable interlocked fastener connected to said loop, said loop having an inside loop surface, and said inside loop surface being non-sealable.

73. The reclosable tape of Claim 72 in which said inside loop surface is selected from the group consisting of an electronic corona style treated surface, a non-sealable lacquer treated surface, and a surface having a non-sealable barrier strip applied thereto.

74. The reclosable tape of Claim 72, in which said tape further comprises a web material compatible outside surface, and in which at least a portion of said inside loop surface is fastener compatible.

75. An apparatus for making recloseable tape or flange, comprising: connecting means for connecting a first fastener of an interlocked fastener to a base tape or flange material, folding means for folding said base tape or flange material over a second fastener of said interlocked fastener and for forming a fold, connecting means for connecting a second fastener of said interlocked fastener to said base or flange material, treating means for making at least one inside wall of said recloseable tape or flange non-sealable, and, optional cutting means for cutting said fold.

76. The apparatus of Claim 75 further comprising rolling means for rolling said recloseable tape or flange onto a spool.

77. A snack bag comprising the recloseable tape of Claim 79.

78. The snack bag of Claim 77 further comprising having a thin sealant layer disposed above said recloseable tape to provide for ease of opening of said snack bag.

79. A tape or flange fastener comprising a lip, an interconnected fastener connected to said lip, and a loop connected to said interconnected fastener, said loop sized and dimensioned to provide sufficient stiffness to allow for the movement of said tape or flange fastener by a vacuum belt.

80. An elongate web having a length and a width comprising a multiplicity of segments of fastener tape or flange connected to said web substantially perpendicular to the length of said web, each said fastener tape or flange having a lip, said lip sealed to said web at predetermined intervals at a lip seal, each said lip having a flexible interlocked fastener thereon, each said interlocked fastener spaced apart from said lip seal and unconnected to said web at said interlocked fastener.

81. The method of Claim 23 and further comprising: continuously applying said vacuum to said vacuum belt whereby positioning of said individual section of tape on said vacuum belt is fixed; and moving said web with said individual section of tape affixed thereon without releasing said vacuum, said seal of said individual section of tape to said web being strong enough to overcome the pull of said vacuum during movement of said web.

82. The apparatus of Claim 16 wherein said vacuum source is continuously applied to said vacuum belt without cycling on and off, whereby precise positioning of said tape segment on said vacuum belt is maintained.